

WELTZHEIMER FOREST HEALTH PROJECT  
(Proposed)

T12N, R15W, York Twp., Athens County  
T13N, R15W, Ward Twp., Hocking County  
T12 & 13N, R16W, Starr & Green Twp., Hocking County  
Ohio

Compartments 76,102,110,144,161,163,195  
Gore, New Straitsville, Nelsonville, & Union Furnace Quadrangles  
Monday Creek Opportunity Area  
Management Area 3.2

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Current Situation:

The Weltzheimer Project Area contains a large amount of oak over 60 years of age. There is 4,980 acres on national forest within the project area. Of this 2,416 acres is in the oak-hickory cover type, which is 48.5 % of national forest land.

Significant mortality is beginning to occur, mainly to black and scarlet oak. It is caused by armillaria and two-lined chestnut borer. These organism generally do not kill healthy trees by themselves. They kills trees that are already under stress from other factors, such as defoliation or drought. Many of the stands are very dense and growth has slowed down. Gypsy moths are spreading from Pennsylvania toward this area. It is estimated that serious defoliation could occur in 8 to 12 years. These combination of events will result in heavy mortality of many tree species, especially oaks. The lost of overstory oaks will also affect the understory vegetation. The trees species that replace the oaks and hickories may be less desirable, especially for wildlife species that depend on acorns and hickory nuts.

The intent of this project is to maintain a healthy, productive, and sustainable ecosystem. Activities can be taken now to minimize the impact of gypsy moth defoliation and reduce the amount or mortality. The intent is also to maintain oak-hickory forests into the future, and minimized the conversion to other forest types, such as maple-beech, especially red maple. The publication "Silvicultural Guidelines for Forest Stands Threatened by the Gypsy Moth" by Kurt Gottschalk (USDA, FS Gen. Tech. Report NE-171, 1993) will be very useful in prescribing treatments.

It may be desirable to begin now to improve conditions for oak and hickory reproduction now, so that when the overstory oaks and hickories die or are harvest that the oak-hickory forest will continue. Prescribed fire may be a very valuable tool in this process.

In the past 20 years there has been a large amount of timber harvesting on national forest land. Most of this has been by clearcutting, except for the Coe Timber Sale, which include selection harvesting also. Most of these clearcut produced adequate oak-hickory reproduction.

This area is within the ORV area with numerous ORV trails.

An ID Team needs to investigate this project area to determine the best management of this area by answering the following questions:

1. Is it important to maintain the oak-hickory type on a large portion of this area?
2. How much mortality is acceptable?
3. What will be the impact of gypsy moth defoliation on plant and animal species?
4. What is the best method of maintaining the visual quality in the long run?
4. What harvesting is prescribed, what is the best silvicultural method to reach the objectives?

Benefits of Harvesting:

1. Improves forest health by cutting down the unvigorous trees before serious insect, disease, or gypsy moth defoliation occurs.
2. Minimized gypsy moth impacts.
3. Improve conditions for oak and hickory reproduction.

Major Concerns:

1. What will be the effect on wildlife species that require acorns and hickory nuts?
2. What will be the effect on prescribed fire on wildlife habitat?
3. What will be the visual effect of the harvest area to the public?
4. What will be the effect on the herbaceous vegetation?
5. What will be the impact if heavy mortality occurs?
6. How to coordinate haul roads and skid trails with ORV trails?

The decision that needs to be made is whether harvesting will contribute to forest health and ecosystem management. In addition what method of harvesting should be prescribed to meet the objectives? Should this be clearcutting, clearcutting with reserve trees, two-aged shelterwood, sanitation thinning, pre-salvage thinning, or selection cutting.

Data Needs:

1. Exam new property within these compartments and add into VMIS.
2. Re-exam compartments 76, which were last examined in 1977. This is 813 acres. The other compartments were examined from 1979 to 1984.
3. Review all oak-hickory stands over 60 years old in the field to make sure data is current.

Acreage:

OAK-HICKORY				CLASS	DATE
COMP	ACRES	ACREAGE	BY AGE		
		60-79	80-99	100+	EXAM
76	813	454	82	29	1977
102	768	126	168	0	1984
110	853	182	141	0	1983
144	926	53	235	51	1982
161	514	140	64	41	1979
163	403	212	44	0	1980
195	703	120	208	66	1986
TOTAL	4980	1287	942	187	
%		25.9	18.9	3.8%	